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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/941,628	08/30/2001	In Jae Chung	041501-5443	6711

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EXAMINER

TON, MINH TOAN T

ART UNIT PAPER NUMBER

2871

DATE MAILED: 04/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/941,628

Applicant(s)

CHUNG ET AL.

Examiner

Toan Ton

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 5-21 is/are pending in the application.
- 4a) Of the above claim(s) 9-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-2, 5-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawatsubashi et al (US5147301, Sawa hereinafter) in view of Wakai et al (US 5166085).

Sawa discloses and shows a liquid crystal display device comprising (see Figures 3-4) : a first substrate 102 having a common electrode formed thereon; a second substrates 101 having an electrode pattern formed thereon; a liquid crystal layer (109) sandwiched between the paired substrates; a seal pattern 108 formed peripherally to a displaying area, and contacting the first and second substrates, and completely surrounding the electrode pattern.

Sawa discloses and shows the second substrate comprises basic components of a thin film transistor (TFT) such as gate, drain, source (see Figures 3-4).

The limitation not disclosed by Sawa is a pixel electrode formed on the protective film. Sawa discloses the pixel electrode 103 directly connected to the drain electrode 104. Wakai discloses and shows (Figures 1-2) that an active matrix substrate comprising a thin film transistor having a pixel electrode directly connected to the drain electrode suffers several disadvantages such as short-circuiting, thus, it is hard to obtain a TFT which can stably operate without causing a short-circuiting between the pixel electrode and the drain electrode (see col. 2, lines 18-27, lines 63-68). Wakai solves the short-circuiting problem by forming the insulation layer between

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the pixel electrode and the drain electrode, wherein the pixel electrode is electrically connected to the drain electrode through a contact hole of the insulation layer. Therefore, it would have been obvious to one of ordinary skill in the art to employ an insulating layer (Applicant's protective film) having a contact hole and formed between the pixel electrode and the drain electrode for avoiding several disadvantages such as short-circuiting.

Per claims 5-6, it would have been at least obvious to one of ordinary skill in the art to form the electrodes on the substrate and the electrodes of the same material (also at the same time) for advantages such as cost-reduction, processing steps-reduction.

***Contact Information***

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan Ton whose telephone number is (703) 305-3489. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 0956.

April 1, 2003

  
TOANTON  
PRIMARY EXAMINER